

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A structured document search method for searching a structured document database, comprising:

accepting a search request in the form of a logical structured document;

analyzing the accepted search request to generate a search graph including graph nodes based on the logical structure, wherein the graph nodes represent one of a hierarchical-level relationship, sibling relationship, or ancestor-posterity relationship, and a variable to be embodied is inserted between the graph nodes; and

generating a search plan for a hierarchical structure possessed by a searched document, in which a search processing procedure for said structured document database is developed from said search graph, said generating the search plan including:

(a) applying a plan generation rule to any one of said graph nodes, using a plan generation rule base including a plurality of plan generation rules, the plurality of plan generation rules each including rule application conditions, costs and search processing procedures, the plan generation rule having a cost less than that of applicable plan generation rules of the plurality of plan generation rules;

(b) executing a search processing procedure of the applied plan generation rule for materializing said variable; and

(c) repeating the applying and the executing thereby to complete said search plan; and acquiring search results satisfying said search request by executing said search plan.

2. (Previously Presented) A structured document search method according to claim 1, further comprising utilizing index information relating to actual data in said structured document database for said materializing.

3. (Cancelled).

4. (Previously presented) A structured document search method according to claim 1, wherein the search plan is executed after the completion of the generation of said search plan.

5. (Original) A structured document search method according to claim 1, wherein generation and execution of said search plan are performed alternately.

6. (Previously Presented) A structured document search method according to claim 2, wherein said structured document database includes a hierarchical structure concerning element name and element value;

said search request includes search conditions concerning said element name and said element value; and

said index information includes at least one of data creation index including information for specifying said element-value creation position in said structured document database and element name occurrence index including information for specifying said element name creation position in said structured document database.

7. (Original) A structured document search method according to claim 6, wherein said element name occurrence index includes information indicating said element name creation position by a parent element one rank higher in hierarchy of the partial structure where said element name is generated.

Claim 8 (Canceled).

Claim 9 (Canceled).

10. (Previously Presented) A structured document search method according to claim 1, wherein said plan generation rule can be arbitrarily registered or deleted in said plan generation rule base.

11. (Original) A structured document search method according to claim 1, wherein said search graph is generated based on the syntax analysis results of the description of said search request, in the generation of said search graph.

Claims 12. -14 (Canceled).

15. (Currently Amended) A structured document search apparatus for searching a structured document database, comprising:

means for accepting a search request in the form of a logical structured document;

means for analyzing the accepted search request to generate a search graph including graph nodes based on the logical structure, wherein the graph nodes represent one of a hierarchical-level relationship, sibling relationship, or ancestor-posterity relationship, and a variable to be embodied is inserted between the graph nodes;

means for generating a search plan for a hierarchical structure possessed by a searched document, in which a search processing procedure for said structured document database is developed from said search graph, said means for generating the search plan including:

means for applying a plan generation rule to any one of said graph nodes, using a plan generation rule base including a plurality of plan generation rules, the plurality of plan generation rules each including rule application conditions, costs and search processing procedures, the plan generation rule having a cost less than that of applicable plan generation rules of the plurality of plan generation rules;

means for executing a search processing procedure of the applied plan generation rule for materializing said variable to complete said search plan; and

means for acquiring search results satisfying said search request by executing said search plan.

16. (Currently Amended) A computer program stored in a computer readable medium for searching a structured document database, the program comprising:

means for instructing a computer to accept a search request in the form of a logical structured document;

means for instructing the computer to analyze the accepted search request to generate a search graph including graph nodes based on the logical structure, wherein the graph nodes represent one of a hierarchical-level relationship, sibling relationship, or ancestor-posterity relationship, and a variable to be embodied is inserted between the graph nodes;

means for instructing the computer to generate a search plan for a hierarchical structure possessed by a searched document, in which a search processing procedure for said structured document database is developed from said search graph, said means for instructing the computer to generate the search plan including:

means for instructing a computer to apply a plan generation rule to any one of said graph nodes, using a plan generation rule base including a plurality of plan generation rules, the plurality of plan generation rules each including rule application conditions, costs and search processing procedures, the plan generation rule having a cost less than that of applicable plan generation rules of the plurality of plan generation rules;

means for instructing a computer to execute a search processing procedure of the applied plan generation rule for materializing said variable to complete said search plan; and

means for acquiring search results satisfying said search request by executing said search plan.